

**Agenda Item: 7-8C**  
**Meeting Dates: April 7 and 8, 2004**

**CONSIDERATION OF A RESOLUTION RECOMMENDING TO THE DEPARTMENT  
OF WATER RESOURCES THAT IT PROCEED WITH A GRANT TO BEGIN  
IMPLEMENTATION OF THE CONTRA COSTA CANAL ENCASEMENT PROJECT**

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**Summary:** This resolution would recommend that the Department of Water Resources (DWR) proceed with awarding a grant of \$7,313,716 to Contra Costa Water District (CCWD) to begin implementation of the Contra Costa Canal Encasement Project as an element of the broader CALFED Rock Slough Water Quality Improvement Project. The project will improve water quality at south Delta drinking water intakes and will provide operational flexibility to the State Water Project and Central Valley Project in a cost-effective manner.

**Recommended Action:** Staff recommends that the Authority adopt the attached Resolution 04-04-04.

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**Background**

The Contra Costa Canal Encasement Project helps implement the comprehensive strategy for improving drinking water quality adopted by the CALFED Drinking Water Quality Program (DWQP). The Project also addresses the ROD commitments to implement agricultural drainage management projects. The project addresses in-Delta agricultural drainage that impacts a Delta drinking water intake through groundwater seepage.

The Project will hydraulically isolate a section of the Contra Costa Canal (Canal) by encasing the Canal in a pipeline to effectively prevent the existing low-quality, agricultural irrigation water from seeping into CCWD's source water. The benefits of the project include improved drinking water quality for CCWD and improved operational flexibility for the State Water Project (SWP) and Central Valley Project (CVP). The project is cost-effective based on the estimated average avoided cost savings of about \$1.4 million per year because of the operational flexibility provided to the SWP and CVP.

CCWD submitted a concept proposal for the CALFED Rock Slough Water Quality Improvement Project, including the Canal Encasement Project, to the State Water Resources Control Board (SWRCB) in response to their Consolidated Request for Concept Proposals released in March 2003 for funding from either Proposition 50 or Proposition 13 Non-point Source Pollution Control Program Funds. The DWQP partnered with the SWRCB during the concept proposal stage of the joint grant process to provide formal review for the project to ensure technical merit, consistency with the ROD as a directed action, and cost-effectiveness. The concept proposal received a very favorable review by the DWQP and SWRCB review committee in July 2003. CCWD then submitted a full proposal to the Authority and DWR for consideration as a directed action.

This proposal is part of a package of actions that address the water quality impacts of surface and subsurface drainage from Veale Tract, Byron Tract, and an area adjacent to the Contra Costa Canal. An Authority and DWR technical panel reviewed the full proposal in November 2003. In December 2003, the Authority recommended funding the surface drainage projects on Veale and Byron Tracts, and recommended that CCWD revise the Canal Encasement Project portion of the proposal and resubmit to the DWQP and DWR. This revised proposal was resubmitted to Authority staff, the technical review panel and DWR on December 19, 2003.

The revised proposal addressed the November 2003 technical review panel comments. The proposal provides the frequency and magnitude of water quality impacts to the canal and benefits to the SWP and CVP; specifically estimates the loading of salinity into the Canal from local groundwater; identifies exact areas of the canal susceptible to groundwater seepage; includes an independent groundwater study to help support the findings in the proposal and the project; and identifies specific causes of degradation to the Canal.

The proposal estimates that the project will provide additional flexibility to the CVP and SWP. The flexibility will allow the CVP and SWP to save approximately 9,000 to 34,000 acre-feet per year, depending on the hydrologic conditions. This amounts to an avoided cost of between \$0.22 million and \$3.4 million each year in wet and dry years, respectively, and an average of about \$1.4 million per year (based on present water purchase costs).

The review of the revised proposal determined that the applicant had largely addressed the concerns of the reviewers. The panel recommends \$7,313,716 in funding for work related to groundwater impacts on Contra Costa Canal with the following modifications. The panel recommends that DWR and CCWD make every effort to limit design and construction costs and that any savings be directed to a task implementing the recommendations of the Rock Slough and Old River Project Best Management Practices program developed pursuant to the grant previously recommended by the Authority (Resolution 03-12-05). CCWD will provide \$1,819,000 as a local cost share. The panel finds that while the cost share for this project is based on an assumed

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distribution of benefits, the actual water quality benefits may be different than estimated. The panel recommends that the realized water quality benefits to CCWD associated with the entire Rock Slough and Old River Project be considered along with the benefits and impacts of the suite of actions comprising Phase 1 of the CALFED Program in determining the appropriate cost share for future CCWD projects funded by the program.

Feasibility, studies, permitting, and portions of the environmental documentation phases of the project are presently funded by DWR and the DWQP, and will be completed by March 2004. The remainder of the environmental documentation work is scheduled for completion by December 2004. The project will be implemented within DWR's budget for south Delta projects.

### **Fiscal Information**

Funding from Chapter 9, Article 3 of Proposition 13 will be used for this grant, subject to budgetary appropriation.

### **List of Attachments**

Attachment 1 - Description of project grant  
Resolution 04-04-04

### **Contact**

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## **Attachment 1**

### **Contra Costa Canal Encasement Project Description**

**Background:** The proposal seeks \$7,313,716 for the Contra Costa Canal Encasement Project (Project) as an element of the CALFED Rock Slough Water Quality Improvement Project. A local cost share of \$1,819,000 is proposed by CCWD.

The Project will improve the ability of the SWP and CVP to meet established Delta water quality standards because long-standing local water quality degradation near the CCWD Pumping Plant No. 1 (PP1) will be reduced. This improvement will allow project operators to meet water quality standards without having to make larger upstream reservoir releases to reduce salinity. As a consequence, there is a benefit of the Project from the increased flexibility in water operations, water supply, carryover storage and environmental protection.

At times, the salinity in the Contra Costa Canal controls operation of the SWP and CVP. During such times, elimination of the sources of water quality degradation will provide the SWP and CVP with greater operational flexibility to meet the standard. Calculations indicate a savings between 9,000 and 34,000 acre-feet per year, depending on the hydrologic conditions. This amounts to an avoided cost of between \$0.22 million and \$3.4 million each year in wet and dry years, respectively, and an average of about \$1.4 million per year.

Water diverted through the Contra Costa Canal serves as a drinking water source for more than 450,000 people. The Project reduces the loading of contaminants (particularly bromide and organic carbon) that impair CCWD's drinking water quality through source water improvement measures. Reducing the impact of salinity, organic carbon, turbidity, nutrients and pathogens in local or regional discharges and runoff will improve treated water quality and reduce the formation of regulated disinfection by-products (DBPs) in drinking water, an explicit objective of the CALFED Drinking Water Quality Program.

Funding ensures balanced implementation of the broader CALFED South Delta Improvement Project. Addressing drainage problems on Veale Tract and Byron Tract is an action identified in the CALFED Record of Decision (ROD).

Funding will be used to design and complete construction of the Canal Encasement Project. Funding will also support construction-related administrative costs, including permitting, legal, and environmental documentation not covered by previous funding. Funding for the project provided

by the \$2.8 million grant to CCWD from DWR, recommended by the Authority in December 2003, funds the feasibility and engineering studies and initiates the environmental and permit work. Funding from the present proposal would complete the environmental and permitting work; a full EIR/EIS is expected due to the physical scale of the project.

The project will hydraulically isolate 1,900 feet of the Contra Costa Canal through an encasement that effectively prevents the existing low-quality, non-point source derived groundwater from seeping into the Canal. The encasement will be a 12-foot diameter pipeline (or double 8-foot pipelines) buried within the present Contra Costa Canal right of way. The action improves drinking water quality for the Contra Costa Water District. The action also improves the operational flexibility of the State Water Project (SWP) and Central Valley Project (CVP) by reducing local sources of water quality degradation in Rock Slough and the Contra Costa Canal which affect the ability of the SWP and CVP to maintain water quality standards required in SWRCB Decision 1641 (the Water Quality Control Plan).

Funding for the agricultural drainage projects is specified in Proposition 13, Chapter 9, section 79196.5(a). A significant local cost share is proposed to complete the project because of the intended benefits to a variety of stakeholders. To ensure the project is cost-effective and remain within budget, the funding contract between DWR and CCWD will incorporate outside reviews of studies, reviews during design including a value engineering workshop to ensure the cost-effectiveness of the project and reviews during the construction bid process. Funding will be subject to budgetary appropriation.

The panel recommends \$7,313,716 in funding for work related to groundwater impacts on Contra Costa Canal with the following modifications:

- The panel recommends that DWR and CCWD make every effort to limit design and construction costs and that any savings be directed to a task implementing the recommendations of the Rock Slough and Old River Project Best Management Practices program developed pursuant to the grant previously recommended by the Authority (Resolution 03-12-05).
- The panel finds that while the \$1,819,000 cost share proposed by CCWD for this project is based on an assumed distribution of benefits, the actual water quality benefits may be different than estimated. The panel recommends that the realized water quality benefits to CCWD associated with the entire Rock Slough and Old River Project be considered along with the benefits and impacts of the suite of actions comprising Phase 1 of the CALFED Program in determining the appropriate cost share for future CCWD projects funded by the CALFED Program.

The CALFED Programmatic Record of Decision (ROD) states that actions to reduce agricultural drainage in the Delta including early implementation projects to reduce or relocate drainage on Veale and Byron tracts to reduce water quality impacts will be completed prior to completion of installation of the permanent South Delta Barriers and before the SWP pumping can increase to its full capacity. The panel's recommendation for award of this grant is based on the understanding that the Rock Slough and Old River Water Quality Improvement Projects, including the work described in Resolution 03-12-05 and today's resolution, when complete, will satisfy this ROD commitment.

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**CALIFORNIA BAY-DELTA AUTHORITY  
RESOLUTION 04-04-04**

**RECOMMENDING TO THE DEPARTMENT OF WATER RESOURCES THAT IT  
PROCEED WITH A GRANT TO BEGIN IMPLEMENTATION OF THE CONTRA  
COSTA CANAL ENCASEMENT PROJECT**

**WHEREAS**, the CALFED Drinking Water Quality Program presents a comprehensive strategy for improving drinking water quality for Delta water users and maximizing public health protection; and

**WHEREAS**, implementation of agricultural drainage management projects such as the Contra Costa Canal Encasement Project, as encompassed by the Rock Slough Water Quality Improvement Project, is called for in the CALFED Record of Decision and is consistent with the objectives of the Drinking Water Quality Program; and

**WHEREAS**, the Contra Costa Water District has agreed to manage the project for implementation expediency and, in doing so has submitted a funding proposal to the Department of Water Resources to implement the project; and

**WHEREAS**, the Contra Costa Water District has agreed to apply a significant local cost share to help fund the project; and

**WHEREAS**, the project meets the funding requirements of Proposition 13 specified in Section 79190(d)(2)(B)(i) and funding exists in the Section 79196.5(a) subaccount for the purpose of implementing projects consistent with Section 79190(d)(2)(B)(i); and

**WHEREAS**, the Department of Water Resources may distribute funds in the form of a grant from the Proposition 13 subaccount for the purposes of implementing the CALFED Program; and

**WHEREAS**, the Authority staff has coordinated with the State Water Resources Control Board and others to provide technical review of the proposal to ensure the project will meet ROD commitments and is technically sound and cost-effective; and

**WHEREAS**, approval of this proposal shall be conditioned upon the grantee complying with all applicable laws and regulations;

**NOW, THEREFORE, BE IT RESOLVED** that the Authority recommends to the Department of Water Resources that it proceed with a grant of \$7,313,716 to the Contra Costa Water District to implement the Contra Costa Canal Encasement Project, subject to availability of appropriated funds:

## **CERTIFICATION**

The undersigned Assistant to the California Bay-Delta Authority does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the California Bay-Delta Authority held on April 7 and 8, 2004.

**Dated:** \_\_\_\_\_

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**Heidi Rooks**  
**Assistant to the California Bay-Delta Authority**